This action is funded by the European Union

ANNEX 1

of the Commission Decision on the Annual Action Programme 2016 in favour of Tanzania to be financed from the 11th European Development Fund

**Action Document for the 11th EDF Rural Electrification Programme**

| 1. Title/basic act/CRIS number | Rural Electrification Programme – Support to Turnkey III in Tanzania  
CRIS number: TZ/FED/037-432  
financed under the 11th European Development Fund |
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>2. Zone benefiting from the Action/location</td>
<td>Tanzania</td>
</tr>
<tr>
<td>3. Programming document</td>
<td>National Indicative Programme (NIP) of the 11th European Development Fund</td>
</tr>
<tr>
<td>4. Sector of concentration/thematic area</td>
<td>Energy</td>
</tr>
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</table>
| 5. Amounts concerned | Total estimated cost: EUR 55 000 000  
Total amount of EDF contribution: EUR 50 000 000  
This action is co-financed in joint co-financing by the Government of Tanzania for an amount of EUR 5 000 000 |
| 6. Aid modality(ies) and implementation modality(ies) | Project modality  
Indirect management with the Rural Energy Agency (REA) |
| 7 a) DAC code(s) | Electric power transmission and distribution - 23630 100% |
| b) Main Delivery Channel | Recipient Government - 12000 |
| 8. Markers (from General policy objective) | Not | Significant | Main |

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1 Official Development Aid is administered with the promotion of the economic development and welfare of developing countries as its main objective.
<table>
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<tr>
<th>CRIS DAC form)</th>
<th>targeted</th>
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<td>☐</td>
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<table>
<thead>
<tr>
<th>RIO Convention markers</th>
<th>Not targeted</th>
<th>Significant objective</th>
<th>Main objective</th>
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<tr>
<td>Biological diversity</td>
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<tr>
<td>Climate change adaptation</td>
<td>X</td>
<td>☐</td>
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| 9. Global Public Goods and Challenges (GPGC) thematic flagships | N/A |
| 10. Sustainable Development Goals (SDGs) | SDG 7 – Universal energy access |

**Summary**

Tanzania’s electricity access rates remain among the lowest in the world, particularly in rural areas. The lack of reliable, affordable and sustainable energy services continues to be a critical constraint to poverty alleviation and socio-economic development. The proposed action aims to improve access to reliable electricity in rural areas through the extension of the distribution network. More specifically, the Action will contribute to the implementation of rural electrification programme of the Government of Tanzania and the Rural Energy Agency (REA) for the period 2016/7-2020/1, the Turnkey III. The extension of the grid is considered to be the least-cost technology to increase access to electricity in the selected areas, which are not far from the grid and relatively densely populated.

The EU contribution from the 11th EDF is EUR 50 million over four years. This support would provide electricity to 250-275 villages in rural regions of Tanzania, with an estimated 80 000 new grid connections benefitting 720 000 people. It would also help strengthen the capacities within the power utility Tanzania Electric Supply Company Limited (TANESCO) and REA to prepare, design and implement rural electrification programmes. The action will increase the quality of life in rural areas, bring clear benefits especially to women and children, and improve health and educational services. The action will also promote entrepreneurship through the productive use of energy and ensure linkages to other key stakeholders promoting rural development at large. Given the nature of the action it is expected that any negative impact will be small and that appropriate mitigation measures will be considered during the design, construction, and commissioning phases.

The estimated overall investments under the Turnkey III rural electrification programme for the period 2016/7-2020/1 (including "on" and "off grid" electrification) stands at USD 1.3 billion, of which the Government undertakes to finance an estimated 80%. Other important contributions to REA will come from key development partners including Sweden, the UK Department for International Development (DFID), Norway and the World Bank. Agence française de développement (AfD) is discussing with the Government of Tanzania/REA its possible participation.
The EU contribution towards the programme would also be channelled through REA in indirect management mode. This is proposed as the preferred implementation modality following the recent Pillar Assessment of REA. These joint and well-coordinated efforts, in complementarity with other EU instruments, including ElectriFI, will contribute to reaching the ambitious goals of the Government of providing universal access to affordable, reliable, sustainable and modern energy for all by 2030 in line with the Sustainable Development Goal 7.

1 CONTEXT

1.1 Sector/Country/Regional context/Thematic area

Tanzania, a medium-sized poor country with a population of 51 million, is a union formed in 1964 between the mainland and the islands of Zanzibar.

Politically stable, its gross domestic product (GDP) is estimated to have grown by 7.2% in the first half of 2015, with strong performance recorded in electricity generation (15.6%), information and communication (14.1%), transport and storage (11.1%), construction (11.1%), and financial intermediation services (11.0%). Economic growth is expected to remain close to 7% in 2016, supported by vigorous growth of credit to the private sector, particularly in the services and construction activities, and the completion of one the natural gas power plants (Kinyerezi I - 150 Megawatt (MW)).

The energy sector is characterised by low electricity access rates and reliance on biomass use for household consumption (fuel wood and charcoal account for some 90% of the total energy use). Despite a significant increase in the number of connections over the last decade (7.5% on a yearly basis), the number of customers served by the power utility TANESCO remains below 2 million and electricity consumption is at approximately 100 kWh per capita per year. It is estimated that some 10 000 villages, i.e. 7 million households remain without access to electricity. These identified areas are targeted by the Rural Energy Agency (REA) for electrification either through grid extension and densification and various off grid solutions.

In the electricity sector the total installed generation capacity has moved from 1226.24 MW (April 2015) to 1461 MW (April 2016), an increase of 19%. The increase is attributed to the new natural gas power plant having come on stream and the completion of the 500 km gas pipeline from Mtwara and Lindi in the South to Dar es Salaam, which has allowed some of the existing power plants to switch to natural gas. Installed capacity is set to increase to 1646 MW with the 180MW Kinyerezi 1 extension to be completed in 2018. According to the latest figures released by the Ministry of Energy and Minerals, the current peak demand of electricity is 1026.02MW, which is below the installed capacity. The current supply of electricity to the national grid is 6227 GWh with an increase of about 3% with respect to the previous year.

Increased use of natural gas has reportedly reduced the average generation cost per unit (kWh) from TZS 262 to 229 (approx. EUR 0.1) and increased the proportion of natural gas in the power generation mix. According to most recent government data available power generation capacity currently consists of natural gas - 711.00 MW (49%), hydropower - 566.79 MW (39%) and thermal and biomass - 183.90 MW (12%). Renewable energy resources such as solar, wind, geothermal, co-generation from biomass and small hydropower currently only contribute to a small amount of the national power supply. The potential of renewable energy resources is very high, particularly for geo-thermal and solar energy.
Despite the opening to Independent Power Producers (IPPs) in 2002, the power sector remains dominated by the vertically integrated national power utility, TANESCO, which owns most of the generation capacity, transmission and distribution networks. Regional interconnections with Kenya, Uganda and Zambia are being developed with a foreseen interconnection of the East African Power pool to the Southern African Power Pool.

### 1.1.1 Public Policy Assessment and EU Policy Framework

Tanzania’s long-term strategy, the **National Development Vision 2025**, is implemented through **Five Year Development Plans**, with the objective of meeting the needs of the fast growing population and lifting the country out of poverty. The second Five Year Development Plan 2016/17 – 2020/21 - FYDP II “Nurturing Industrialization for Economic Transformation and Human Development” is to mobilize and organize the national resources strategically in order to: 1) Nurture an industrial economy in a bid to transform Tanzania into a semi-industrialised nation by 2025; 2) Accelerate economic growth while making sure that the quality of that growth will benefit the majority of the people in terms of significant poverty reduction and job creation especially for the youth and women; and 3) Foster and strengthen implementation effectiveness. The FYDP II clearly identifies slow implementation of strategic projects in the energy sector as a major limitation and one of the main reasons for the partial failure to achieve objectives and targets set forth in the FYDP I and the National Strategy for Growth and Reduction of Poverty (MKUKUTA II)

In 2013, the Government launched the Big Results Now (BRN) Initiative. The BRN focuses on accelerating the delivery of defined priority results in six areas of the economy, including (a) energy and natural gas; (b) agriculture; (c) water; (d) education; (e) transport; and (f) mobilisation of resources, with a major emphasis on leveraging private sector investment. In the priority area of energy and natural gas, the key focus is to improve reliability and access to power supply by increasing gas-fired power generation capacity and access to electricity in rural areas. The new Government inaugurated following the 2015 Presidential elections has reaffirmed its commitment to the implementation of the BRN priority energy projects.

The 2015 National Energy Policy (NEP) stresses that the lack of access to affordable and reliable electricity presents a major constraint to achieving the desired socioeconomic transformation in Tanzania. To attain the planned access targets, the Government of Tanzania has embarked on an ambitious programme to accelerate significantly the connection of rural households to the national grid and increase connectivity rates to 50% by 2020 and to 75% by 2025.

Tanzania has also developed the Sustainable Energy for All (SE4All) Action Agenda that seeks to integrate the multi-tiered efforts towards providing universal access to energy, increased energy efficiency and an increase in the use of renewable energy. In the SE4All Action Agenda for Tanzania, Government reiterates the goal to transform the energy sector by deepening reforms and increase public and private investment.

The rural electrification efforts continue to be led by the REA and are guided by the National Electrification Program Prospectus published in July 2014. The REA five-year Strategic Plan (2016/17 - 2020/21) sets the very ambitious goal to provide access to some 10 000 yet un-electrified villages in mainland Tanzania over a period of five years. A Rural Energy Master Plan is under preparation and will cover the period 2018 – 2030 to match that of the SE4All Action Agenda.

Substantial investments will be required in generation, transmission and distribution infrastructure. It is estimated that power supply generation capacity will have to increase to some 10 000 MW (from the current 1500 MW) to sustain the economic growth required to transform Tanzania into a middle income country by 2025. In order to attract the required capital, the country has embarked on an ambitious programme of reforms aimed at increasing efficiency and service delivery and creating
conditions for greater sustainability. A central piece of this undertaking is the Electricity Supply Industry (ESI) Reform Strategy and Roadmap 2014-2025, which foresees the restructuring of the power utility and progressive separation (unbundling) of the generation, transmission and distribution business segments into separate companies. The restructuring of the electricity supply industry and market aims at improving governance and performance to allow for sustainable socio-economic transformation anchored in active participation of the private sector.

The core reforms being introduced stem from the 2008 Electricity Act. Other key elements of the legal and regulatory framework for the power sector include the Energy and Water Utilities Regulatory Authority (EWURA) Act (2001) establishing an independent regulator, the Rural Energy Act (2005), establishing the Rural Energy Agency, The Rural Energy Regulations (2011), and Small Power Producer (SPP) framework. The Second Generation SPP framework covers the development of small hydro, biomass, wind and solar energy projects of capacity ranging from 100kW up to 10MW, and is based on two approaches: Renewable Energy Feed-in Tariffs (REFITs) approach for small hydro and biomass projects; and competitive/bidding process approach for wind and solar projects.

The proposed action is fully in line with the 11th EDF NIP which prioritises energy as one focal cooperation areas with a twofold focus on access and reforms, as well as the Sustainable Development Goal 7, which is to ensure access to affordable, reliable, sustainable and modern energy for all by 2030. It will support the EU commitment to provide access to an additional 500 million people by 2030 proposed by President Barroso and endorsed by Commissioner Mimica. Cooperation in the energy sector is also critical for meeting the long-term goals contained in the Paris agreement on climate change.

1.1.2 Stakeholder analysis

The two main stakeholders are the power utility Tanzania Electric Supply Company Limited (TANESCO) and the Rural Energy Agency (REA). TANESCO is a parastatal organization that was established in 1964 and is wholly owned by the Government of the United Republic of Tanzania. The Ministry of Energy and Minerals (MEM) sets and oversees policies and strategies while the Energy and Water Utilities Regulatory Authority (EWURA) regulates the operations of TANESCO, as well as those of independent power producers (IPPs) and small power producers (SPPs).

In the current set up, TANESCO owns the national transmission and distribution network as well as a number of large power plants that provide most of the electricity generation. SPPs and, more importantly, IPPs contribute, however, a significant share. TANESCO operates through a network of regional offices, responsible for the operation and maintenance of the network at local level.

TANESCO has known many of the inefficiencies typical of state-owned utilities, such as transmission and distribution losses, low level of revenue collection, poor procurement practices, inadequate planning and implementation capacities, insufficient skills in technical and managerial positions which have all contributed to the critical financial position of the utility. This has impacted customers that continue to be confronted with frequent power outages and low power quality, and IPPs that have seen the amount of outstanding payments increase considerably over time. TANESCO’s plan to bring the level of arrears down has yet to produce the expected result.

An internal reform has been launched aimed at improving performance and service delivery through a series of measures in the area of procurement, metering, revenue collection, accountability for results and performance monitoring. In parallel, the Electricity Supply Industry (ESI) road map adopted in 2014 contemplates the turnaround of TANESCO and the vertical unbundling of the utility. The first step in the road map is the separation of the generation business segment that should lead to the establishment of new public generation company to compete with IPPs for the supply of power to TANESCO and directly to bulk (industrial) off takers.
The REA was established in 2005 and became operational in 2007 with the aim of promoting rural energy access and electrification investments that by their nature could not be funded on commercial grounds. REA coordinates the planning phase, mobilizes the funding and coordinates the procurement process for rural electrification projects on-grid and also provides support to off-grid developments led by private sector, non-governmental organisations (NGOs) and community-based organisations. It is also responsible for monitoring and evaluating the impact of rural energy projects. Despite the limited staff (less than 70 employees), REA has achieved significant success in promoting small scale renewable generation and rural electrification projects, the most notable of which has been the implementation of two country wide Turnkey Rural Electrification programmes with the aim to increase electricity access through grid extension and promote new connections. Preparation for Turnkey III is ongoing and financing under the 2016-17 budget has been earmarked to allow for the programme to be rolled out as of early 2017.

REA Operations and Project Financing Expenditures for 2016/2017 are estimated at TZS 715.738 Billion (approx. EUR 290 million) out of which TZS 702.841 Billion is for projects financing and TZS 12.897 Billion for REA operational expenses. Out of TZS 702.841 Billion required for project financing, TZS 559.243 Billion or approximately 80% is expected to come from Government sources (mainly through transfer to REA of the entire expected revenues from the Fuel and Electricity Levies) with an increase of some 50% compared to the previous financial year. Development partners are expected to contribute TZS 143.598 Billion. About 90% of project financing is planned to be used for transmission, distribution as well as densification interventions.

Both TANESCO and REA fall within the area of responsibility of the Ministry of Energy and Minerals (MEM) as the Ministry responsible for facilitating development of the energy and mineral sectors. The overall indicative budget of the MEM in 2016/17 financial year amounts to TZS 1.122 Billion (approx. EUR 460 million). This is a 74.9% increase in comparison to 2015/16 financial year (FY) budget of TZS 642 Billion. Some 94% is allocated for development expenditure (including the above transfers to REA and investments in new gas to power plants to remain under public control) and 6% for recurrent expenditures. Nevertheless, development expenditure includes some important ordinary expenditure and will remain below the investment needs in generation, transmission and distribution. MEM’s stated priorities include:

a. to improve and expand generation, transmission and distribution of electricity for socio-economic development;

b. implementation of the Electricity Supply Industry (ESI) Reform Strategy;

c. development of renewable energy sources including geothermal and biomass;

d. to attract and facilitate private sector investment in energy sector and mining activities;

e. strengthening revenue collection; and

f. development and empowering small scale miners;

The Energy and Water Utilities Regulatory Authority (EWURA) was created under the Energy and Water Utilities Regulatory Authority Act (EWURA Act) in 2001 and became operational in 2006. EWURA’s core functions are licensing and regulating access to the market, tariff setting, and establishing and monitoring technical standards that promote quality and reliability in electricity services and distribution of petroleum and gas resources. As mentioned earlier, EWURA has issued a series of rules and regulations to promote small scale renewable generation and distribution projects. EWURA approved in 2012 a 40% average tariff increase application submitted by TANESCO, which contributed to improving the cost-reflectiveness of the electricity tariff structure and therefore TANESCO’s finances.

The target group of the REA rural electrification programme are rural consumers, mainly households to be part of the so-called lifeline tariff for low consumption customers, small scale productive users,
public buildings and facilities. Although the demand and willingness to pay (for a subsidised connection fee and subsidised tariff) have generally been estimated as high, accompanying measures are required (as outlined below) to ensure a satisfactory uptake of energy services and to increase the number of connection by high consumption productive users.

1.1.3 Priority areas for support/problem analysis

Tanzania's electricity access rates remain among the lowest in the world, particularly in rural areas. The lack of reliable, affordable and sustainable energy services continues to be a critical constraint to poverty alleviation and socio-economic development, including being a key hurdle for increased rural productivity and private sector development. Energy is also one of the three main elements of the “Nexus” approach, where water, agricultural and energy security are seen as intersecting and interdependent.

Major barriers toward improving rural electricity connectivity include high upfront investment costs, due to harsh terrains and inaccessibility, scattered settlements in the rural areas, leading to long and costly distribution lines. Other elements are high operating costs of grids in rural areas due to low population density, acquisition of way-leaves due to land compensation demands and vandalism of power infrastructure.

The sub-sector of rural electrification has suffered from weak planning, organisational capacity and financial constraints. The weak financial position of the power utility TANESCO, and the lack of alternative financing instruments to support investments in rural access, have further hampered grid extension and distribution in rural areas. The establishment of the Rural Energy Agency and Rural Energy Fund, the promulgation of the new electricity legislation (Electricity Act 2008) and the development of a regulatory framework for rural electrification projects (including for SPP and mini grids) have helped address some of the shortcomings. This was compounded by the introduction of a fuel and an electricity levy to fund rural electrification by REA and by efforts undertaken towards cost recovery with a notable increase in electricity tariffs in 2012 and 2014.

Subsidies to fund energy access in rural areas are justified given that the necessary investment in infrastructure cannot be recovered from small rural consumers who often do not have the capacity to pay high connection costs. The tariff for most of the rural customers is the lowest D1-tariff grid, which currently stands at 100 TZS/KWH. This is not cost reflective as the average generation cost currently stands at approximately 250 TZS/KWH. Therefore, the tariff necessitates a subsidy to be sustainable for TANESCO. The National Energy Policy 2015 recognises the role of subsidies among the policy instruments used by governments to attain economic, social and environmental objectives.

REA intends to roll out the next phase of its rural electrification strategy starting from 2016/17 to further extend its transmission and distribution network to rural areas and increase the number of connections in areas already electrified (densification). A key criterion for least cost electrification is distance from the 33 kV MV-grid. According to the National Electrification Prospectus about 46% of rural residents live close to an existing grid, making on-grid electrification the least cost option for these. Another criterion is the identification of so called “development centres”, derived from simple ‘Indicators for Potential Development’ such as village population size, where the projects are likely to yield the highest economic and social rate of return. Mini-grids are considered justified to reach the 20% of the population that live far from the grid but in high density population areas. It is estimated in general that socio-economic returns significantly outweigh the investment costs of rural electrification programmes, and are therefore well justified national priorities.

The current framework foresees that TANESCO will take over the transmission and distribution assets built through the programme. The action will therefore require a strong coordination between REA and TANESCO. TANESCO, as the ultimate owner and operator of the foreseen infrastructure will be
involved in the design of the power network, preparation of the technical specifications and supervision of works. The action will include the mobilisation of technical assistance to strengthen capacities of REA and TANESCO's staff.

To ensure proper operations and maintenance of the rural network and long term sustainability of investment in access will require TANESCO to address inefficiencies and improve its financial position. It will also require a clear and transparent public subsidy policy for the rural areas.

2 **RISKS AND ASSUMPTIONS**

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<th>Risks</th>
<th>Risk level (H/M/L)</th>
<th>Mitigating measures</th>
</tr>
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<tbody>
<tr>
<td>Slow uptake of new connections in rural areas.</td>
<td>H</td>
<td>Implement subsidy scheme for Turnkey III to facilitate acceleration in connectivity. Implement the REA outreach plan (see activities). Promote productive use of electricity. Facilitate connections of poorest households through social programmes / measures. Promote the introduction of ready-board device (instead of wiring the entire house). Facilitate and coordinate with Local Government Authorities the connections of public buildings incl. budgeting for service line connection, internal wiring or ready board, and the subsequent monthly payments for electricity.</td>
</tr>
<tr>
<td>Land compensation demands.</td>
<td>M</td>
<td>REA request beneficiaries of rural energy projects to waive demands for compensation. In specified cases, an equal and transparent criterion to be developed for compensation and resources set aside for this purpose from the government financial contribution.</td>
</tr>
<tr>
<td>Lack of supervision and coordination</td>
<td>M</td>
<td>EU and development partners to continue to call for close cooperation between REA and TANESCO on rural electrification. Technical assistance provided under the action to REA and TANESCO to prepare, design and supervise rural electrification projects and ensure an appropriate level of performance in operations and maintenance of the lines once they enter into operation.</td>
</tr>
<tr>
<td>Sustainability of the intervention</td>
<td>M</td>
<td>TANESCO, as the ultimate owner and operator of the infrastructure participates in the design of the power network, preparation</td>
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</tbody>
</table>
of the technical specifications and monitoring of the contractors.

Local communities are involved from the early stages of project implementation to facilitate awareness and uptake of energy services.

Activities are put in place to stimulate new connection from productive users.

Dialogue and actions in support of core energy sector reforms

Assumptions

Government's high-level commitment towards SDG7 and rural electrification is maintained, and efforts are pursued to put in place conducive policies.

The power utility TANESCO will further implement measures to address inefficiencies across the board and improve its financial position.

Availability of installed generation capacity and completion of main ongoing and planned power plants.

The action contributes to high-level policy dialogue and coordination between government institutions, NSA and development partners.

3 LESSONS LEARNT, COMPLEMENTARITY AND CROSS-CUTTING ISSUES

3.1 Lessons learnt

The action will build on the 10th EDF and the EU Energy Facility that have promoted innovative approaches for decentralised solutions to energy supply based on renewable sources, as well as grid development and new connections in rural areas. Valuable lessons have been generated under programmes by other development partners in Tanzania, including Sweden, Norway and the World Bank.

Accumulated experience in rural electrification in Tanzania, and more widely in Africa, offers some important indications as regards socio-economic impacts, cost of energy and willingness to pay, importance of stakeholder interactions as well as technical and financial execution of projects.

It is established that electricity tariffs are cheaper than other sources of energy such as kerosene, batteries, candles or even wood fuels that are widely used in rural area. A Baseline Survey carried out in 2011 in Tanzania revealed that the willingness to pay for energy services is very high within rural communities, due to the adoption of modern appliances including the use of new technology in communication. This was evidenced by a significant percentage i.e. 92% of rural households are willing to pay for energy services.

Recent experiences from REA Turnkey II operations confirm the importance to associate existing stakeholders already during the planning process to ensure their full collaboration during implementation. There is a need for information dissemination through different communication channels, such as public meetings and media (TVs, local radios etc.). This includes secondary and primary schools as well as clinics in rural areas that fall under Local Government Authorities (LGAs).
It is important to engage well in advance with LGAs to encourage connectivity and budgeting for service line connection, internal wiring or ready board, and for the subsequent monthly payments for electricity consumed.

There are huge needs and opportunities to direct energy access investments to increase rural productivity, for instance, to support milling, irrigation and small and micro-enterprises. A recent draft discussion paper by International Institute for Environment and Development (IIED)/Humanist Institute for Cooperation (HIVOS) "Remote but productive: How can Tanzania make the most of mini-grid and other energy access investments to catalyse local enterprises, jobs and incomes among poor rural communities?" confirmed that policy-makers and citizens have high expectations that rural energy access investments will transform local economies. However, this does not happen automatically. Catalysing productive uses of energy (PUE) often requires extra measures to overcome barriers such as gaps in local people’s skills, financial resources, barriers to supporting women’s entrepreneurship, and non-energy bottlenecks in value chains which make it hard for small enterprises to convert their electricity into increased productivity and incomes (e.g. poor roads). Investing in awareness-raising and targeted capacity building, good practice guidance, patient (long-term) capital and increased cross-sector co-ordination among key institutions in rural development could promote more integrated approaches to energy access and rural development through productive use of energy.

Providing rural households, social institutions, and productive enterprises with new energy access and improved energy services has the potential to promote gender equality, create employment and business opportunities for women and improve development outcomes with regard to, for example, education and maternal health. Evidence shows that these benefits are more often realized if gender-sensitive approaches are integrated in the design and implementation of rural electrification interventions.

Several pieces of evidence suggest that household electrification raises employment by releasing women from home production and enabling micro-enterprises. Migration behaviour may also be affected. Recent experiences have also indicated the willingness of the youth to stay and benefit and take part in new services and opportunities provided following access to modern energy services, be it at home or as a source for productive use and business development. Improved access might therefore help curtail the migration flows of the youth and families to urban centres and beyond.

Comprehensive long run rural electrification planning has to be undertaken for all rural zones, in order to assess the economic and financial benefits, the costs and the identification of the feasible alternatives. Technical planning should consider various technical options, alone or in combination, from the very early stages. These include grid extension, mini-grid and development of distributed technologies. REA has recently adopted a network planner system that is expected to provide a basis for better informed decision making.

Financial planning and financing schemes need to respond to the needs and characteristics of rural electrification projects. Such schemes should allow sharing of the burden of electricity access costs through cross-subsidies among customers but also time (short term high return schemes may pay for lower return schemes developed later on). Grants are justified when cross-subsidies are not sufficient to fund the investment programmes. Electricity tariffs should be cost reflective to allow for enhanced sustainability of the service provided. Cost reflective tariffs would also help attract private sector interest to invest in and operate local networks once the appropriate market structures and regulatory frameworks are in place (following the full vertical and horizontal unbundling process, as outlined in the Tanzania Electricity Supply Industry Reform Strategy and Roadmap).

To ensure the sustainability of the project, close supervision of both Contractors and sub-contractors is needed to ensure high quality outputs, that will also make operating and maintenance of the network less costly to TANESCO.
Furthermore, coordination of rural electrification efforts especially as regards on and off grid areas needs to be strengthened.

The Government, through the Ministry of Energy and Minerals, has requested beneficiaries of rural energy projects to waive for land compensation of grid extension projects. However, in specified cases, an equal and transparent criterion should be developed for land compensation and resources set aside for this purpose from the Government.

3.2 Complementarity, synergy and donor coordination

Investment in the extension of the public distribution network in rural areas under this 11th EDF programme will be complemented by private sector-led initiatives in generation (on and off grid) and distribution (off grid or "grid-connected") supported under the innovative EU Electrification Financing Initiative (ElectriFI). The response to the first call for proposals under ElectriFI reflects a strong interest from Tanzania for the instrument. The EU African Investment Facility (AfIF) will instead provide parallel opportunities for the blending of EU grants with loans from International Financial Institutions (IFIs) and other financing for the development of large scale energy infrastructure, in particular for high voltage transmission lines but also for power generation from renewable sources. These will build on ongoing blending operations under the AfIF, namely the 400 kV transmission line Iringa-Shinyanga (with the European Investment Bank (EIB) and other financing institutions) and the 200 kV line Geita-Nyakanazi (with Kreditanstalt fuer Wiederaufbau (KfW) and Agence francaise de développement (AfD)).

Key complementary actions will also be those to be developed under the second main objective pursued in the 11th EDF NIP for this sector: the support to energy sector reforms will be crucial to ensure the long term sustainability of investment in infrastructure. The EU intends to strengthen policy dialogue and follow up on initial assistance provided to the national regulatory authority EWURA, to MEM and REA; It is considering engaging with TANESCO, in close coordination with development partners already involved, such as USAID and the World Bank. Assistance is already ongoing in areas such as the evaluation of TANESCO's assets and liabilities and the preparation of competitive procurement of generation projects in natural gas and renewable energy. An enabling environment to promote private sector investment will be important to meet the ambitious plans to expand generation capacity in line with the goal to transform the country into a middle income economy by 2025.

A number of Development Partners are assisting REA in its rural electrification efforts, through technical and financial support. The 11th EDF programme will be running in parallel with a rural densification programme funded by Norway (NOK 230m), a World Bank Rural Electrification Expansion Project (Tanzania Rural Electricity Expansion Program (TREEP), amounting to US$ 219m) and a Swedish / DFID support to the Rural Energy Fund for on-grid electrification and renewable mini/micro grids (SEK 600 million and GBP 30 million). These are all meant to contribute to achieving REA's rural electrification goals.

Coordination with development partners and, in particular, with European development partners, has taken place during the formulation of the present proposal and will continue to take place in the framework of the Energy Development Partner Group (EDPG), sub-group on rural electrification, and as part of regular meetings between the sub-group and the REA Board. In addition, the EU Delegation will continue to meet with REA’s Management on a bilateral basis for regular consultations around the 11th EDF support implementation.
3.3 Cross-cutting issues

Given the nature of the programme it is expected that any negative impact will be small and that appropriate mitigation measures will be considered during the design, construction, and commissioning phases. The programme will be implemented taking into account best practices on cross-cutting issues in rural electrification projects. Particular effort will be made to ensure and monitor gender equity in promoting new connections and in the access to programmes to develop skills and promote employment in connection with productive users of energy.

**Gender** - Without reliable and safe access to energy especially in rural areas, women and children spend most of their day performing basic tasks, including time-consuming and physically draining tasks of collecting biomass fuels such as wood. Fighting energy poverty also means to fight against unequal access to energy resources for women and children. Gender equality and child-rights are therefore integral parts of reforming the energy sector in Tanzania.

The National Energy Policy 2015 calls for effective participation of both women and men in development of energy sector at the grass-root level. Despite increased awareness and national commitments, women and girls still face significant obstacles with regard to legal protection and control of personal and household assets, and they register lower education and health outcomes. Recognizing the inherent gender-based differences in impact and opportunities associated with the provision of energy services, REA has developed a systematic approach to mainstream the gender dimension in its programmes. Opportunities will be sought to strengthen co-operation with other partners to reinforce integration of gender equity and women empowerment considerations.

Access to energy will support human rights, in particular women and child rights, by extending affordable, safe and clean supply of electricity for education and security, and better indoor environment both at home and at school. Health benefits will come from reduced exposure to smoke from kerosene lanterns. Furthermore, provision of public street lighting will improve overall security, and lighting recreational areas such as play- and sports grounds in rural areas would improve the overall quality of childhood. Access to electricity will open up opportunities for economic activities that can contribute to diversified income with positive repercussions on household food security and nutrition.

**Climate change and Environment** – The programme is in line with the EU objective to promote and support low carbon energy. Access to electricity is expected to reduce the use of diesel, kerosene and wood fuels. With added generation coming from low carbon sources, such as natural gas and hydropower and plans to increase resort to solar, wind and geothermal in the medium to long run, the programme supports a low-carbon development agenda with clear mitigation benefits.

By its nature, the extension of the power distribution network by means of medium and low voltage transmission lines have moderate impacts on the environment. This has been confirmed in the environmental and social impact assessment (ESIA) carried out as part of the pre-feasibility study conducted in preparation for this programme. The national legislation and regulations on environmental and social impact assessments under the control of the National Environmental Management Council (NEMC) will continue to apply as appropriate to rural electrification projects.
4 DESCRIPTION OF THE ACTION

4.1 Objectives/results

This action is relevant for the Agenda 2030. It contributes primarily to the progressive achievement of SDG target 7 which is to ensure access to affordable, reliable, sustainable and modern energy for all by 2030.

The overall objective of the action is to improve livelihoods and foster social and economic development in rural areas through provision of access to electricity.

The specific objective of the action is to improve access to reliable power in rural areas through the extension of the public power distribution grid.

The action will contribute to the implementation of third phase of the rural electrification programme of the Government of Tanzania led by REA (Turnkey III, 2016/7-2020/1) with a focus on settlements which are within 10 km of the 33-kV MV network in selected regions of Tanzania.

The expected results (R) of the action in 2017-2020 are:

- **R1**: Some 250 - 275 villages in rural regions of Tanzania gain access to electricity.
- **R2**: An estimated 80 000 new grid connections including households, businesses and public buildings, benefiting a total population of some 720 000 people.
- **R3**: Strengthened technical capacities within TANESCO and REA to prepare, design, monitor and supervise rural electrification projects and ensure an appropriate level of performance in operations and maintenance of the lines once they enter into operation.

4.2 Main Activities

Result 1 - Some 250 - 275 villages in rural regions of Tanzania gain access to electricity.

- Confirm final selection of target villages/districts/regions having regard to the Turnkey III plan.
- Prepare Engineering, Procurement, Construction (EPC) tender documents, tender and select competent contractors.
- Monitor and supervise Turnkey operations (extension and connections).
- Certify and approve systems of Turnkey operations.

Result 2 - Estimated 80 000 new grid connections including households, businesses and public buildings, benefiting a total population of some 720 000 people.

- Implement REA's outreach plan to raise awareness of prospective beneficiaries of energy services.
- Identification of productive uses of electricity in targeted rural areas and activities to increase use of electricity for productive uses (businesses) in rural areas.
- Coordinate with Local Government Authorities to facilitate connection of public buildings and provision of services.
- Conduct survey of poor households to be connected using ready–boards.
Result 3 - Strengthened technical capacities within TANESCO and REA to prepare, design, monitor and supervise rural electrification projects and ensure an appropriate level of performance in operations and maintenance of the lines once they enter into operation.

- Streamline and strengthen joint REA / TANESCO planning, monitoring and supervision systems of rural electrification projects.
- Streamline and strengthen joint REA / TANESCO certification and approval systems to ensure an appropriate level of performance.
- Improve and strengthen overall coordination functions incl. data collection, analysis and management capacity at REA / TANESCO incl. improving national energy statistics.

4.3 Intervention logic

The assessment undertaken as part of the 11th EDF NIP formulation, confirmed the extension of the grid as to be the least-cost technology to increase access to electricity in areas which are not far from the grid and relatively densely populated. Electrification through other solutions, such as micro or mini grid distribution based on solar power still requires considerable up-front investment and remains uncompetitive in the targeted areas. Stand-alone systems such as solar home systems are increasingly seen as complementary, rather than alternative to, grid connected power in rural areas. The Government of Tanzania has set ambitious targets for the expansion of the national distribution grid to reach as many villages as possible among those that can be electrified at a reasonable investment cost and has asked for the participation of development partners in the financing of this ambitious undertaking. The Government has demonstrated its commitment to this objective by allocating more than half of the Energy sector development budget for the year 2016/17 to the Turnkey III rural electrification programme (some EUR 200 million). The overall programme cost to reach some 10 000 villages in the next 5 years has been estimated at USD 1.3 billion.

A number of donors have already committed funding to support this effort (World Bank, Norway, Sweden and DFID) and others discussing with Government of Tanzania their possible participation (AID). The EU will therefore join a number of development partners in the implementation of a nation-wide programme coordinated by REA/TANESCO. The timing of EU commitment is very much appropriate as Government of Tanzania intends to roll out the third phase of its rural electrification programme already starting from the fiscal year 2016/17.

A field survey conducted in the regions of Mwanza, Manyara, Morogoro, Dodoma and Singida (partly also Geita and Simiyu) based on some 400 villages pre-identified by REA and TANESCO revealed that 275 villages in 23 Districts can be electrified under the EU contribution, because they are within the 10km from existing MV lines and have enough customers eligible for connection. The pre-feasibility study report outlined the main results to be achieved, the estimated overall costs of the action and the average investment cost of connection (approx. 600/700 euros). Average costs per connection are considered adequate by national and international comparison to justify the investment.

The proposed action is of significant importance for the socio-economic development of Tanzania in general and for the selected regions in particular. While the pre-feasibility study conducted during formulation aimed at providing concrete indications on specific projects for EU support, the final definition of target regions/districts/villages will need to reflect possible developments in the surveyed areas since the field visits.
5 IMPLEMENTATION

5.1 Financing agreement
In order to implement this action, it is foreseen to conclude a financing agreement with the partner country, referred to in Article 17 of Annex IV to the ACP-EU Partnership Agreement.

5.2 Indicative implementation period
The indicative operational implementation period of this action, during which the activities described in section 4.2 will be carried out and the corresponding contracts and agreements implemented, is 48 months from the date of entry into force of the financing agreement.

Extensions of the implementation period may be agreed by the Commission’s authorising officer responsible by amending this decision and the relevant contracts and agreements; such amendments to this decision constitute non-substantial amendment in the sense of Article 9(4) of Regulation (EU) 2015/322.

5.3 Implementation of the budget support component
N.A.

5.4 Implementation modalities

5.4.1 Indirect management with the partner country
Implemented through a pool fund

A part of this action may be implemented in indirect management with the Rural Energy Agency of Tanzania in accordance with Article 58(1)(c) of Regulation (EU, Euratom) No 966/2012 applicable in accordance with Article 17 of Regulation (EU) 2015/323. This implementation entails supporting the rural electrification programme of the Government of Tanzania and REA with a focus on the Turnkey III programme for rural electrification 2016/7-2020/1. The aim is to promote new connections and increase electricity access in rural areas. This includes planning and priority setting, contract management, financial management, dissemination and communication related activities, awareness raising, training, monitoring of rural electrification activities and accurate and timely results reporting. This implementation is justified based on the Rural Energy Act no.8 of 2005 that gives REA the explicit mandate to promote and facilitate extended access to modern energy services including electrification in rural areas of Mainland Tanzania. Being an autonomous body, REA’s powers emanate from sector legislation; REA is therefore considered as an agency designated by a Third Country in line with Article 58.1 c.(i) of the Financial Regulation.

In addition to the financial contribution by the Government of Tanzania, a number of Development Partners contribute to REA’s rural electrification efforts, through technical and financial support. The 11th EDF programme will be running in parallel with a rural densification programme funded by Norway, a World Bank Rural Electrification Expansion Project (Tanzania Rural Electricity Expansion Programme (TREEP)) and a Swedish / UK Department for International Development (DFID) support to the Rural Energy Fund for on-grid electrification and renewable mini/micro grids. These are all meant to contribute to achieving the targets set for the third phase of REA’s rural electrification goals.

The entrusted entity would carry out the following budget-implementation tasks: launch calls for tenders; defining eligibility, selection and award criteria; evaluating tenders; awarding contracts; acting as contracting authority concluding and managing contracts, carry out payments.
The entrusted Partner Country’s organisation is currently undergoing the ex-ante assessment in accordance with Article 61(1) of Regulation (EU, Euratom) No 966/2012, applicable in accordance with Article 17 of Regulation (EU) No 2015/323. The Commission’s authorising officer responsible deems that, based on the compliance with the ex-ante assessment based on Regulation (EU, Euratom) No 1605/2002 and long-lasting problem-free cooperation, the Partner Country’s organisation can be entrusted with budget-implementation tasks under indirect management.

Following the recommendations of the ongoing Pillar Assessment and as a pre-condition for approval of indirect management, REA needs to successfully implement the recommended measures as regards the risk assessment component of Pillar 1 (Internal Control System). This entails “simplifying” the existing risk management policy and procedures in order to obtain a pragmatic approach to implement risk management procedures which are tailored and considered sufficient for the organisation. Once a tailored risk management process has been prepared, the risk management should be implemented into the internal control process and be part of the daily activities. Pillar 1 will be re-assessed in Q4 2016.

5.4.2 Changes from indirect to direct management mode due to exceptional circumstances

Grant: direct award "Rural Electrification Programme – Support to the Implementation of Turnkey III" (direct management)

If negotiations with the above-mentioned entrusted entity fail, that part of this action may be implemented in direct management in accordance with the following implementation modalities.

(a) Objectives of the grant, fields of intervention, priorities of the year and expected results aim to improve access to affordable, reliable, sustainable and modern electricity access in rural areas through the extension of the national grid as outlined in detail in section 4.1.

(b) Justification of a direct grant

Under the responsibility of the Commission’s authorising officer responsible, the recourse to an award of a grant without a call for proposals is justified because in accordance with the Rural Energy Act no.8 of 2005, REA is considered as an agency designated by a Third Country in line with Article 58.1 c.(i) of the Financial Regulation. REA has the explicit mandate to promote and facilitate extended access to modern energy services including electrification in rural areas of Mainland Tanzania. Being an autonomous body, REA’s powers also emanate from sector legislations: In terms of principal legislation in the electricity sector, it derives its powers from the Electricity Act, 2008; and in the petroleum sector, from the Petroleum Supply Act, 2008. As for regulatory framework, REA works closely with the multi-sectoral regulatory authority, Energy and Water Utilities Regulatory Authority (EWURA), which is responsible for technical and economic regulation of the energy and water sectors in Tanzania. This is in line with Article 190 RAP (1) (c) where the beneficiary is in a legal or factual monopoly situation, as it is the only organisation (i) operating or (ii) capable of operating in the field of activity and/or geographical area to which the grant relates by virtue of all considerations of fact and law.

(c) Essential selection and award criteria

The essential selection criteria are the financial and operational capacity of the applicant. The essential award criteria are relevance of the proposed action to the objectives of the call; design, effectiveness, feasibility, sustainability and cost-effectiveness of the action.

(d) Maximum rate of co-financing
The maximum possible rate of co-financing for this grant is 80% of the overall action.

In accordance with Articles 192 of Regulation (EU, Euratom) No 966/2012 applicable by virtue of Article 37 of (EU) regulation n° 323/2015 if full funding is essential for the action to be carried out, the maximum possible rate of co-financing may be increased up to 100 %. The essentiality of full funding will be justified by the Commission’s authorising officer responsible in the award decision, in respect of the principles of equal treatment and sound financial management.

(e) Indicative trimester to conclude the grant agreement
First trimester of 2017.

5.5 Scope of geographical eligibility for procurement and grants

The geographical eligibility in terms of place of establishment for participating in procurement and grant award procedures and in terms of origin of supplies purchased as established in the basic act and set out in the relevant contractual documents shall apply, subject to the following provisions.

The Commission’s authorising officer responsible may extend the geographical eligibility in accordance with Article 22(1)(b) of Annex IV to the ACP-EU Partnership Agreement and Article 89(2)(f)(ii) and 89(3) of Council Decision 2013/755/EU on the basis of urgency or of unavailability of products and services in the markets of the countries concerned, or in other duly substantiated cases where the eligibility rules would make the realisation of this action impossible or exceedingly difficult.

5.6 Indicative budget

<table>
<thead>
<tr>
<th>Indicative budget</th>
<th>EU contribution (amount in EUR)</th>
<th>Indicative third party contribution, in currency identified</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.4.1 Indirect management with a partner country</td>
<td>49 000 000</td>
<td>5 000 000</td>
</tr>
<tr>
<td>5.9 - Evaluation, 5.10 - Audit</td>
<td>300 000</td>
<td>N.A.</td>
</tr>
<tr>
<td>5.11. Communication and visibility</td>
<td>700 000</td>
<td>N.A.</td>
</tr>
<tr>
<td>Totals</td>
<td>50 000 000</td>
<td>5 000 000</td>
</tr>
</tbody>
</table>

5.7 Organisational set-up and responsibilities

The Rural Energy Agency (REA) will be the executing agency and have responsibility for the overall implementation, monitoring of progress and reporting. This includes contract management, financial management, administration, and accurate and timely results reporting.

The Rural Energy Board (REB) governs operations of REA and oversees administration of Rural Energy Fund (REF). The REB is an autonomous body, with Board members from a number of key...
stakeholder agencies and institutions as set out in the Rural Energy Act. REB is comprised of representatives from the Ministry of Finance, Ministry of Energy and Minerals, Ministry responsible for regional administration and local government, private sector, civil society, consumers, Tanzania Bankers’ Association, development partners (Energy Development Partner Group); REB works within the policy framework as established by the Minister of Energy and Minerals and reports annually to the Minister of Energy and Minerals.

Tanzania Electric Supply Company Limited (TANESCO) is mandated to supervise all works in the National Grid System and will have the responsibility for supervision of construction and commissioning. After completion, the operation will be handed over to TANESCO. The Distribution Division’s Operational Section will be responsible for overseen operation and maintenance of the expanded electricity distribution network.

A Memorandum of Understanding will be signed between TANESCO and REA, witnessed by MEM and the EU Delegation, establishing the objectives and respective responsibilities under the programme.

The EU will be an integral member of the Joint REA - Development Partner Steering Committee once established. Meanwhile, the 11th EDF Rural Electrification Steering Committee will continue to be the platform of interaction among key stakeholders of the programme.

REA management is responsible for ensuring that the systems, controls, rules and procedures are in accordance with internationally accepted standards and best practices when it comes to handling risks for corruption.

The EU Pillar Assessment of REA had the objective to provide reasonable assurance as to whether REA is in accordance with internationally accepted standards and with the criteria set by the European Commission for management of funds from the EDF. Subject to simplification and implementation of the existing risk management framework as recommended by the pillar assessment auditors, it is considered that conditions are in place for REA to become eligible with budget implementation tasks as outlined in section 5.

REA’s internal safeguards for handling corruption risks have been extensively addressed in Swedish International Development Cooperation Agency’s (SIDA) Systems Based Audit, risk analysis for the Assessment Memorandum, and Mid Term Review (MTR) of REA Capacity Development project. In addition, Norway has carried out a performance audit of REA which provided recommendations for improving the management of REA.

REA has a code of conduct and Ethical Committee in place that specifies the proper work ethics to follow. The evaluation process of projects is designed to mitigate fraudulent behaviour by separating actual disbursement of funds from the decision-making functions in the award committee and the Rural Energy Board (REB). This is further strengthened by the role of the Trust Agent that does the actual transfer to developers. SIDA’s system audit assessed that the risk of diverting deposits from the Rural Energy Fund for other than those strictly specified in contracts is minimal with the current checkpoints.

5.8 Performance monitoring and reporting

The day-to-day technical and financial monitoring of the implementation of this action will be a continuous process and part of the implementing partner’s responsibilities. To this aim, the implementing partner shall maintain a permanent internal, technical and financial monitoring system for the action and elaborate regular progress reports and final reports. Separate reports relating to the
action can be requested if need arise. Every report shall provide an accurate account of implementation of the action, difficulties encountered, changes introduced, as well as the degree of achievement of its results (outputs and direct outcomes) as measured by corresponding indicators, using as reference the logframe matrix. The report shall be laid out in such a way as to allow monitoring of the means envisaged and employed and of the budget details for the action. The final report, narrative and financial, will cover the entire period of the action implementation.

The European Commission may undertake project monitoring visits both through its own staff and through independent consultants recruited directly by the Commission for independent monitoring reviews (or recruited by the responsible agent contracted by the Commission for implementing such reviews).

The REA has a well-established monitoring and evaluation (M&E) system that tracks progress on the implementation of all REA-supported energy projects and includes a results-based monitoring approach, detailed in the REA’s M&E framework. The M&E framework provides information on the quarterly implementation status and achieved results. The results-based monitoring-reported information tracks physical implementation progress and financial expenditures against planned activities and budgets. The REA’s M&E system is managed by the REA’s M&E unit, while evaluations are partly managed internally within the REA and partly by external and independent evaluators as engaged by REA management when the need arises.

5.9 Evaluation

Having regard to the nature of the action, mid-term and final evaluation(s) will be carried out for this Action or its components via independent consultants contracted by the Commission.

The mid-term evaluation will be carried out to take stock of project implementation, constraints, challenges and success to guide further project implementation and orientations.

The final evaluation will be carried out for accountability and learning purposes at various levels (including for policy revision) taking into account in particular lessons learnt from rural electrification outreach through grid extension.

The Commission shall inform the implementing partner at least 30 days in advance of the dates foreseen for the evaluation missions. The implementing partner shall collaborate efficiently and effectively with the evaluation experts, and inter alia provide them with all necessary information and documentation, as well as access to the project premises and activities.

The evaluation reports shall be shared with the partner country and other key stakeholders. The implementing partner and the Commission shall analyse the conclusions and recommendations of the evaluations and, where appropriate, in agreement with the partner country, jointly decide on the follow-up actions to be taken and any adjustments necessary, including, if indicated, the reorientation of the project.

Indicatively 2 contracts for evaluation services shall be concluded under for mid-term and final evaluation.

5.10 Audit

Without prejudice to the obligations applicable to contracts concluded for the implementation of this Action, the Commission may, on the basis of a risk assessment, contract independent audits or expenditure verification assignments for one or several contracts or agreements.
Without prejudice to the obligations applicable to contracts concluded for the implementation of this Action, the Commission may, on the basis of a risk assessment, contract independent audits or expenditure verification assignments for one or several contracts or agreements.

Indicatively, one contract for audit services shall be concluded under a framework contract during implementation of the Action, if necessary.

5.11 Communication and visibility

The EU will ensure that adequate communication and visibility is given to EU funding by the Government of Tanzania through specific events like project inaugurations, press conferences, media reports, etc. Furthermore, the implementing partner will establish and maintain a web-site containing all relevant programme documents and information for the public. It will produce other communication material such as brochures, press releases, and if feasible, TV and radio spots to secure outreach and proper communication of the Project to the respective target audiences.

Communication and visibility of the EU is a legal obligation for all external actions funded by the EU. This Action shall contain communication and visibility measures which shall be based on a specific Communication and Visibility Plan, to be elaborated at the start of implementation and supported with the budget indicated in section 5.6 above.

In terms of legal obligations on communication and visibility, the measures shall be implemented by the Commission, the implementing partner, contractors, grant beneficiaries and/or entrusted entities. Appropriate contractual obligations shall be included in, respectively, the financing agreement, procurement and grant contracts, and delegation agreements.

The Communication and Visibility Manual for European Union External Action shall be used to establish the Communication and Visibility Plan of the Action and the appropriate contractual obligations.

One or more service contracts for a total amount of EUR 700 000 will be awarded as a result of the procurement procedures in accordance with the provisions in the practical guide for Procurement And Grants for European Union external actions. The procedure will be launched in the 3rd semester of 2017.

6 Pre-conditions

The entity underwent a Pillar Assessment to provide assurance as to whether it fulfils the requirements set out in points (a) to (d) of the first subparagraph of Article 60.2 of the Financial Regulation applicable to the General Budget of the European Commission and Article 29.1 of the Financial Regulation applicable to the European Development Fund with regard to the following Pillars: 1. Internal Control System, 2. Accounting System, 3. Independent External Audit, 4. Grants and 5. Procurement.

Following the recommendations of the assessment and as a pre-condition for approval of indirect management, REA needs to successfully implement the recommended measures as regards the risk assessment component of Pillar 1 (Internal Control System) of the above mentioned Pillar Assessment. This entails "simplifying the existing risk management policy and procedures in order to obtain a pragmatic approach to implement risk management procedures which are tailored and considered sufficient for the organisation. Once a tailored risk management process has been prepared, the risk management should be implemented into the internal control process and be part of the daily activities". Pillar 1 will be re-assessed in Q4 -2016 and hence constitutes a pre-condition of the action.
APPENDIX 1 - INDICATIVE LOGFRAME MATRIX (FOR PROJECT MODALITY) ²

The activities, the expected outputs and all the indicators, targets and baselines included in the logframe matrix are indicative and may be updated during the implementation of the Action, no amendment being required to the financing decision. When it is not possible to determine the outputs of an Action at formulation stage, intermediary outcomes should be presented and the outputs defined during inception of the overall programme and its components. The indicative logframe matrix will evolve during the lifetime of the Action: new lines will be added for including the activities as well as new columns for intermediary targets (milestones) for the output and outcome indicators whenever it is relevant for monitoring and reporting purposes. Note also that indicators should be disaggregated by sex whenever relevant.

<table>
<thead>
<tr>
<th>Results chain</th>
<th>Indicators</th>
<th>Baselines (incl. reference year)</th>
<th>Targets (incl. reference year)</th>
<th>Sources and means of verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall objective:</strong> Impact</td>
<td>To improve the living conditions of the rural population and foster social and economic development in beneficiary areas through provision of access to electricity.</td>
<td>% of population below the poverty line in target districts/villages</td>
<td>28.2% (National Census 2012)</td>
<td>Local Government Authorities National Bureau of Statistics (National Panel Survey, Household Budget Survey Integrated Labour Force Survey)</td>
<td>Government's high-level commitment towards poverty reduction and rural development is maintained.</td>
</tr>
<tr>
<td><strong>Specific objectives:</strong></td>
<td>To improve access to reliable electricity in rural areas through the extension of the national distribution grid.</td>
<td>% of rural population with access to electricity</td>
<td>40% at national level (MEM May 2016)</td>
<td>TANESCO, National Bureau of Statistics, Local Government Authorities REA Monitoring and Evaluation Framework.</td>
<td>Government programme for rural electrification is implemented.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Execution of</td>
</tr>
</tbody>
</table>

² Mark indicators aligned with the relevant programming document mark with '*' and indicators aligned to the EU Results Framework with '**'.

[21]
<table>
<thead>
<tr>
<th>Outputs</th>
<th>R1: Some 250 - 275 villages in rural regions of Tanzania will gain access to electricity.</th>
<th>Number of villages with medium and low voltage lines constructed; Transformers</th>
<th>Baseline 0 villages in selected areas</th>
<th>Year 1: Procurement of contractors completed; Works contract signed; Works underway</th>
<th>The REA M&amp;E framework provides information on the quarterly implementation status and achieved results. The results-based approach enables the evaluation of the program's effectiveness.</th>
<th>Customers accept the new electric services provided.</th>
<th>Energy services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of villages with access in target rural areas*</td>
<td>Number of connections in target rural areas* and direct beneficiaries</td>
<td>Number of people employed in economic activities relying on grid-connected power in targeted villages disaggregated for women and youth</td>
<td>Number of people with access to improved health and education services in target districts/villages</td>
<td>Independent monitoring and evaluation reports</td>
<td>National Panel Survey, Household Budget Survey, Integrated Labour Force Survey, REA Monitoring and Evaluation Framework.</td>
<td>Independent monitoring and evaluation reports</td>
<td>planned projects in the generation and transmission sector.</td>
</tr>
</tbody>
</table>

TANESCO ownership and support of the program.

- 25 % by 2018
- 35 % by 2019
- 45% by 2020

- For targeted rural areas:
  - 100% by 2021

- 250-275 villages by 2021

- 80,000 connections by 2021, directly benefiting 720,000 people
### R2: Estimated 80,000 new grid connections including households, businesses and public buildings directly benefiting a total population of 720,000 people.

<table>
<thead>
<tr>
<th>Number of overall new connections in selected villages in which:</th>
<th>Baseline 0</th>
<th>Year 2: 70 villages</th>
<th>Year 3: 150 villages</th>
<th>Year 4: 250-75 villages</th>
<th>monitoring-reported information tracks physical implementation progress and financial expenditures against planned activities and budgets.</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Number of connections among poorest households</td>
<td>Baseline 0</td>
<td>Year 2: 20000</td>
<td>Year 3: 40 000</td>
<td>Year 4: 80 000&lt;sup&gt;3&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>- Number of connections for productive use</td>
<td>Baseline 0</td>
<td>Year 2: 6,000</td>
<td>Year 3: 9,000</td>
<td>Year 4: 12,000</td>
<td></td>
</tr>
<tr>
<td>- Number of connections of public facilities</td>
<td>Baseline 0</td>
<td>Year 2:2,000</td>
<td>Year 3:3,000</td>
<td>Year 4:4,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 2: 844</td>
<td>Year 3: 1,266</td>
<td>Year 4: 1,688</td>
<td></td>
</tr>
</tbody>
</table>

<sup>3</sup>This is the overall cumulative figure following year 4

### Opportunities for Productive Use of Energy

Households are able to connect to ‘Ready boards’

Funds and subsidies are made available by the government as needed for land compensation and household connections for poor families.

### Meet the expectations of customers
| R3: Strengthened technical capacities within TANESCO and REA to prepare, design and monitor and supervise rural electrification projects and ensure an appropriate level of performance in operations and maintenance of the lines once they enter into operation | Coordination between TANESCO and REA to timely perform activities | Joint rural electrification planning and monitoring tool established | Year 1: Tool established | Performance Assessment of REA, TANESCO EU ROM missions | Willingness of REA and TANESCO to cooperate and improve systems and operations |
APPENDIX 2- REA organisational matrix